

REMARKS

In the last Office Action, the Examiner objected to the drawings; objected to claims 63-69; rejected claims 63-69 under 35 U.S.C. § 112, 1st paragraph; rejected claims 63-69 under 35 U.S.C. § 112, 2nd paragraph; rejected claims 63, 64, 67, and 68 under 35 U.S.C. § 102(b) as being anticipated by Stumpe et al. (U.S. Patent No. 5,615,931); and indicated that claims 65, 66, and 69 would be allowable if rewritten to overcome the Section 112, 2nd paragraph rejection and to include all of the limitations of the base claim and any intervening claims.

Applicant respectfully traverses the objection to the drawings. The Examiner has implied that the drawings do not show an embodiment including a variable throttling valve, a pressure sensor, a pressure regulator, a control means, and first and second air bags responsive to the gas pressure to urge a valve element towards its minimum and maximum throttling positions. The Examiner has also asserted that the embodiments of figures 1 and 5 do not show the claimed control means, and the embodiment of figures 3 and 4 does not show the claimed pressure regulator or the first and second air bags positioned to urge the valve element towards its minimum and maximum throttling positions.

Applicant respectfully disagrees and notes that the drawings do, in fact, show the variable throttling valve, the pressure sensor, the pressure regulator, the control means, and first and second air bags. For example, Fig. 5, among other figures, clearly shows a variable throttling valve 13 (p. 10, lines 23-25); a pressure sensor 55 (p. 17, lines 11-12); a pressure regulator 29 (p. 17, line 14); a control means (e.g., the output signal provided by pressure sensor 55 that controls pressure regulator 29 such that pressure regulator 29 selects one of a plurality of reference fluid pressures (p. 17, line 20 to p. 18,

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line 5)); and first and second air bags 26 and 27 that urge throttling valve 13 toward its minimum or maximum throttling positions (p. 11, line 19 to p. 12, line 5; p. 17, lines 13-19).

Further, the Examiner has maintained that the vehicle of claims 67-69 is not shown. By this Amendment, Applicant has added a new Fig. 6, which shows a vehicle including a load sensing system according to an exemplary embodiment of the present invention. Support for this new figure can be found in the application as-filed at, for example, page 5, line 16 through page 6, line 7. Applicant, therefore, respectfully submits that the drawings show every claim element, as required by 37 C.F.R. § 1.83(a). Accordingly, the objection to the drawings should be withdrawn.

Applicant respectfully traverses the objection to claims 63-69. By this Amendment, Applicant has adopted the Examiner's suggestion to remedy the informality identified in claim 63. Accordingly, the objection to claims 63-69 should be withdrawn.

Applicant respectfully traverses the rejection of claims 63-69 under 35 U.S.C. § 112, 1st paragraph. By this Amendment, Applicant has amended the claims to recite --one or more axles-- instead of "the rear axle," as suggested by the Examiner. Accordingly, the Section 112, 1st paragraph rejection of claims 63-69 is moot and should be withdrawn.

Applicant respectfully traverses the rejection of claims 63-69 under 35 U.S.C. § 112, 2nd paragraph. By this Amendment, Applicant has addressed each of the Examiner's concerns identified in section 6 of the Office Action. Applicant respectfully submits that all of the pending claims fully comply with the provisions of Section 112, 2nd

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paragraph, and therefore, the Section 112, 2nd paragraph rejection of claims 63-69 should be withdrawn.

Applicant respectfully traverses the rejection of claims 63, 64, 67, and 68 under 35 U.S.C. § 102(b) as being anticipated by Stumpe et al. for at least the reason that Stumpe et al. fails to disclose every claim element. For example, independent claim 63 recites a combination of elements including, *inter alia*, a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position. Stumpe et al. fails to disclose at least this claim element.

Based on the Examiner's own interpretation of Stumpe et al., it is clear that Stumpe et al. fails to teach at least the second air bag responsive to a selected one of a plurality of reference fluid pressures. For example, in section 8 of the Office Action, the Examiner states that Stumpe et al. discloses "a pressure regulator 22 for supplying a reference fluid pressure." The Examiner further suggests that Stumpe et al. discloses "a second air bag 56 responsive to the selected reference fluid pressure." This observation, however, is incorrect.

The air bag 56 of Stumpe et al. is not responsive to the fluid pressure supplied by pressure regulator 22. Air bag 56, in fact, is a passive device that responds only to changes in loads placed on an axle (col. 2, lines 51-55) and not to changes in pressure supplied by pressure regulator 22. As a preliminary matter, Applicant notes that air bag 56, as shown in the drawings, is simply an air spring bellows that is isolated from the rest of the braking system. (Fig. 1.) That is, no fluid lines or sensors are even connected to air bag 56. Nevertheless, Stumpe et al. discloses that an axle load

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sensor, like sensor 58 used to measure the air pressure in air bag 54, may also be used to measure the pressure in air bag 56. (col. 3, lines 59-62.) Therefore, for clarity, Applicant will discuss the operation of the Stumpe et al. system as if sensor 58 was arranged to measure the pressure in air bag 56.

In the Stumpe et al. system, air bag 56 is configured such that the pressure within air bag 56 increases in response to an increase in load placed on the axle of the vehicle. A pressure sensor, such as sensor 58, may be used to detect the air pressure level in air bag 56 and output this pressure level information over output line 60 to pressure regulator 22 and on to controller 14. (col. 2, lines 51-55; col. 3, lines 34-38; Fig. 1.) Controller 14 uses the measured pressure level information to account for axle load when determining the required pressure values needed for individual wheel brakes. Once determined, the required pressure values, adjusted according to axle load, are passed to pressure regulator 22. (col. 3, lines 15-30.)

There is no fluid communication, however, between air bag 56 and pressure regulator 22. Rather, pressure regulator 22 only provides the controller-determined wheel braking pressure value to wheel cylinder 42. Pressure regulator 22 does not also communicate this wheel braking pressure, or any other pressure, to air bag 56. It necessarily follows, therefore, that air bag 56 is not responsive to the fluid pressure provided by pressure regulator 22. For at least this reason, the Stumpe et al. system fails to disclose at least a second air bag responsive to a selected one of a plurality of reference fluid pressures. Accordingly, the Section 102(b) rejection of claims 63, 64, 67, and 68 is improper and should be withdrawn.

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Applicant wishes to thank the Examiner for the indication of allowable subject matter in several of the pending claims. By this Amendment, Applicant has rewritten claims 65 and 66 in independent form. Thus, claims 65, 66, and 69, which depends from claim 65, are in immediate condition for allowance. Applicant notes that while claim 66 originally depended from claim 64, claim 66 included a parallel construction to allowable claim 65, which depended from claim 63. Therefore, in rewriting claim 66 in independent form, Applicant has omitted the elements of claim 64. Applicant respectfully submits that independent claim 66 is in condition for allowance by virtue of its recitation of novel features and also for the inclusion of the elements of independent claim 63, which is in condition for allowance for at least the reasons discussed above.

Applicant respectfully requests that this Amendment under 37 C.F.R. § 1.116 be entered by the Examiner, placing claims 63-69 in condition for allowance. Applicant submits that the proposed amendments of claims 63-69 do not raise new issues or necessitate the undertaking of any additional search of the art by the Examiner, because all of the elements and their relationships claimed were either earlier claimed or inherent in the claims as examined. Therefore, this Amendment should allow for immediate action by the Examiner.

Furthermore, Applicant submits that the entry of the amendment would place the application in better form for appeal, should the Examiner dispute the patentability of the pending claims. Specifically, the amendments to claim 63 resolve the Section 112, 1st and 2nd paragraph issues raised by the Examiner, and claims 65 and 66 have been rewritten in independent form. Thus, entering this Amendment would place the application in better form for appeal by resolving the Section 112 issues with respect to

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claims 63-69 and placing at least claims 65, 66, and 69 in immediate condition for allowance. For at least these reasons, this Amendment should be entered.

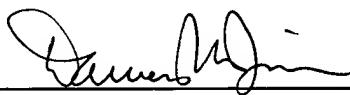
In view of the foregoing, Applicant submit that the claimed invention is neither anticipated nor rendered obvious in view of the prior art references cited against this application. Applicant therefore requests entry of this Amendment, reconsideration and reexamination of the application, and timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: December 4, 2003

By: 

Darren M. Jiron
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Attachments: one replacement sheet of drawings including original Fig. 1 and newly added Fig. 6

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